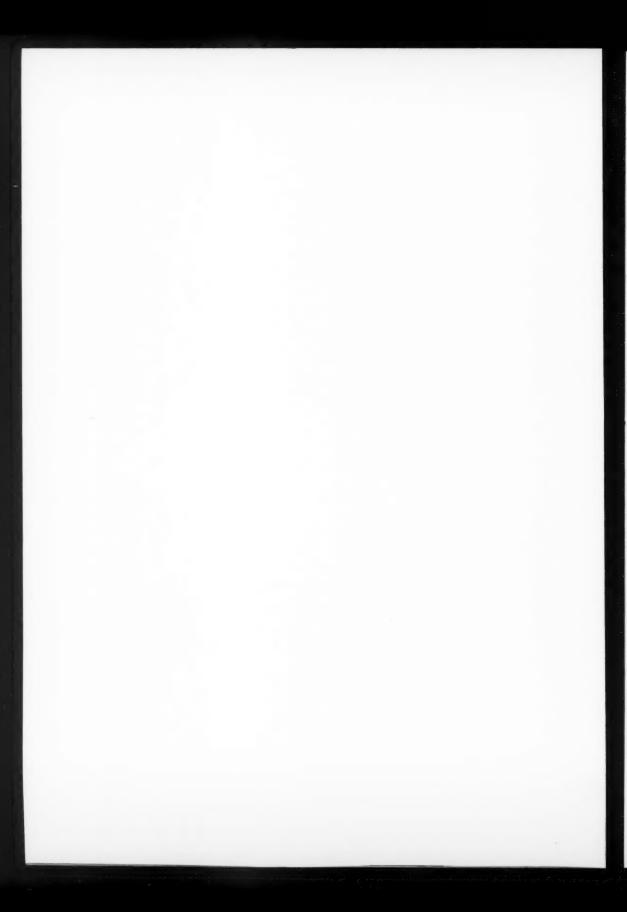
AUTHOR INDEX

Idea CD Winder DA and Manner ID (Decorio A7 IICA)
Idso, S.B., Kimball, B.A. and Mauney, J.R. (Phoenix, AZ, U.S.A.) Effects of atmospheric CO ₂ enrichment on root:shoot ratios of carrot, radish cotton and
soybean
Jacquard, P. (Montpellier, France)
Book review of Managed Grassland. Analytical Studies by R.W. Snaydon (Editor) 303 Book review of Rangelands: a Resource under Siege by P.J. Joss, P.W. Lynch and O.B.
Williams (Editors)
Johnson, N.C. (Madison, WI, U.S.A.) and McGraw, AC. (Argonne, IL, U.S.A.)
Vesicular-arbuscular mycorrhizae in taconite tailings. I. Incidence and spread of
endogonaceous fungi following reclamation
Johnson, N.C. (Madison, WI, U.S.A.) and McGraw, AC. (Argonne, IL, U.S.A.) Vesicular-arbuscular mycorrhizae in taconite tailings. II. Effects of reclamation
practices
Kelly, E.F., Aguilar, R., Muhaimeed, A.S., Deutch, P.C. and Heil, R.D. (Berkeley, CA,
U.S.A.)
Profile reconstruction: a method to quantify changes in soil properties resulting from
cultivation
Kimball, B.A., see Idso, S.B. et al.
Klijnstra, J.W. and Brüggemann, I.E.M. (Delft, The Netherlands)
Oviposition deterring pheromone of Pieris brassicae
Lalanne-Cassou, B., see Descoins, C. et al.
Lepp, N.W., see Dickinson, N.M. et al.
McGraw, AC., see Johnson, N.C. and McGraw, AC.
McRae, C.F., see Auld, B.A. et al.
Madden, L.V., see Raccah, B. et al.
Mailloux, G., Richard, M.A. and Chouinard, C. (St. Bruno de Montarville, Quebec,
Canada) Spring, summer and autumn emergence of the Colorado potato beetle, Leptinotarsa
decemlineata (Say) Coleoptera: Chrysomelidae
Malcolm, C.V., Clarke, A.J., D'Antuono, M.F. and Swaan, T.C. (Booragoon, W.A.,
Australia)
Effects of plant spacing and soil conditions on the growth of five Atriplex species
Mastro, V.C., see Schwalbe, C.P. and Mastro, V.C.
Mauney, J.R., see Idso, S.B. et al.
Mowat, D.J. and Clawson, S. (Belfast, Gt. Britain)
Insecticide treatments for the control of small ermine moth, Yponomeuta padella (L.)
in hawthorn hedges245
Muhaimeed, A.S., see Kelly, E.F. et al.
Otto, P.Ph.H.L., Stein, F. and Willigen van der, C.A. (Delft, The Netherlands)
A bio-organic synthesis of (+)-disparlure, sex pheromone of Lymantria dispar (Gypsy
moth)
Environmental impacts on cereal grain production in the Canadian prairie provinces: a
growth constraint model
Pimentel, D. (Ithaca, NY, U.S.A.)
Book review of Rational Pesticide Use by K.J. Brent and R.K. Atkin (Editors)
Pirone, T.P., see Raccah, B. et al.
Raccah, B. (Bet Dagan, Israel), Pirone, T.P. (Lexington, KY, U.S.A.) and Madden, L.V. (Wooster, OH, U.S.A.)
Correlation between the incidence of aphid species and the incidence of two non-
persistent viruses in tobacco

Ragoussis, N., (Athens, Greece)
Simultaneous synthesis of the two sexual pheromone constituents of Phthorimaea operculella
Raman, K.V. (Lima, Peru)
Control of potato tuber moth Phthorimaea operculella with sex pheromones in Peru 85
Rauscher, S., see Arn, H. et al.
Richard, M.A., see Mailloux, G. et al.
Ritter, F.J., (Zeist, The Netherlands)
Applied research on semiochemicals at T.N.O.
Ruppel, E.G., Gilbertson, R.L. and Schweizer, E.E. (Fort Collins, CO, U.S.A.)
Population densities of selected soil-borne fungi and disease incidence in a crop rotation
under carried weed-management systems
Say, M.M., see Auld, B.A. et al.
Schwalbe, C.P. and Mastro, V.C. (Otis, MA, USA)
Multispecific trapping techniques for exotic-pest detection
Schweizer, E.E., see Ruppel, E.G. et al.
Scifres, C.J. (Stillwater, OK, U.S.A.)
Book review of Agronomy of Grassland Systems by C.J. Pearson and R.L. Ison 306
Silvain, J.F., see Descoins, C. et al.
Stathers, R.J., see Pierce, J.T. and Stathers, R.J.
Stein, F., see Otto, P.Ph.H.L. et al.
Surtan, G.T.K., see Dickinson, N.M. et al.
Swaan, T.C., see Malcolm, C.V. et al.
Theiling, K.M. and Croft, B.A. (Corvallis, OR, U.S.A.)
Pesticide side-effects on arthropod natural enemies: a database summary
Van der Willigen, C.A., see Otto, P. Ph.H.L. et al.
Van Oosten, A.M., see Gut, J. et al.
Van Rheenen, B., see Gut, J. et al.
Viets, F.G. (Fort Collins, CO, U.S.A.)
Book review of Soil Conservation - Assessing the National Resources Inventory. Vol. 1
Committee on Conservation Needs and Opportunities
Voerman, S., (Wageningen, The Netherlands)
The pheromone bank: a collection of unsaturated compounds indispensible for discovery
of sex attractants for Lepidoptera



CONTENTS OF AGRICULTURE, ECOSYSTEMS AND ENVIRONMENT, VOLUME 21 $\,$

VOL. 21 NOS 1-2

SEPTEMBER 1988

Preface	1
Applied research on semiochemicals at T.N.O.	
F.J. Ritter (Zeist, The Netherlands)	3
Identification and synthesis of new pheromones	
W. Francke (Hamburg, F.R.G.)	21
The pheromone bank: a collection of unsaturated compounds indispensible for discovery of sex attractants for Lepidoptera	
S. Voerman (Wageningen, The Netherlands)	. 31
C.P. Schwalbe and V.C. Mastro (Otis, MA, U.S.A.)	43
Surveillance d'insectes ravageurs des cultures par piégeage sexuel des mâles dans les départements de la Guadeloupe et de la Guyane	
C. Descoins (Saint Rémy-lès-Chevreuse, France), J.F. Silvain, B. Lalanne-Cassou	
(Cayenne, France) and H. Chéron (Petit-Bourg, France)	E9
The role of pheromones in the management of pink bollworm infestation in Egyptian	99
cotton fields	
M.M. Hosny (Cairo, Egypt)	67
Control of potato tuber moth Phthorimaea operculella with sex pheromones in Peru K.V. Raman (Lima, Peru)	85
Confusion sexuelle avec des phéromones en Europe de l'Ouest	-
H. Audemard (Montfavet, France)	101
Sex pheromone blends of three tortricid pests in European vineyards	
H. Arn, S. Rauscher, P. Guerin and HR. Buser (Wädenswil, Switzerland)	111
Short Communications	
Simultaneous synthesis of the two sexual pheromone constituents of <i>Phthorimaea</i> operculella	
N. Ragoussis (Athens, Greece)	119
A bio-organic synthesis of (+)-disparlure, sex pheromone of Lymantria dispar (gypsy moth)	
P.Ph.H.L. Otto, F. Stein and C.A. van der Willigen (Delft, The Netherlands)	121
Appendices	
Additional function of alarm pheromones in developmental processes of aphids	
J. Gut, A.M. van Oosten (Delft, The Netherlands) P. Harrewijn and B. van Rheenen (Wageningen, The Netherlands)	125
Oviposition deterring pheromone of Pieris brassicae	-30
J.W. Klijnstra and I.E.M. Brüggemann (Delft, The Netherlands)	129
Conclusions	122

VO	I. 21	NOS	3-4

OCTOBER 1988

Vesicular-arbuscular mycorrhizae in taconite tailings. I. Incidence and spread of endogonaceous fungi following reclamation	
N.C. Johnson (Madison, WI, U.S.A.) and AC. McGraw (Argonne, IL, U.S.A.)	. 135
Vesicular-arbuscular mycorrhizae in taconite tailings. II. Effects of reclamation practices	
N. C. Johnson (Madison, WI, U.S.A.) and AC. McGraw (Argonne, IL, U.S.A.)	143
Profile reconstruction: a method to quantify changes in soil properties resulting from cultivation	
E.F. Kelly, R. Aguilar, A.S. Muhaimeed, P.C. Deutsch and R.D. Heil	
(Berkeley, CA, U.S.A.)	153
Population densities of selected soil-borne fungi and disease incidence in a crop rotation under varied weed-management systems	
E.G. Ruppel, R.L. Gilbertson and E.E. Schweizer (Fort Collins, CO, U.S.A.)	163
Spring, summer and autumn emergence of the Colorado potato beetle, Leptinotarsa	
decemlineata (Say) (Coleoptera: Chrysomelidae)	
G. Mailloux, M.A. Richard and C. Chouinard (St. Bruno de Montarville, Quebec,	
Canada)	171
Further studies on copper accumulation in Kenyan Coffea arabica plantations	
N.M. Dickinson, N.W. Lepp (Liverpool, Gt. Britain) and G.T.K. Surtan (Eldoret,	
Kenya)	181
Pesticide side-effects on arthropod natural enemies: a database summary	
K.M. Theiling and B.A. Croft (Corvallis, OR, U.S.A.)	191
Possible control of Xanthium spinosum by a fungus	
B.A. Auld, C.F. McRae and M.M. Say (Orange, N.S.W., Australia)	219
Environmental impacts on cereal grain production in the Canadian prairie provinces: a growth constraint model	
J.T. Pierce and R.J. Stathers (Burnaby, B.C., Canada)	225
Insecticide treatments for the control of small ermine moth, Yponomeuta padella (L.) in hawthorn hedges	
D.J. Mowat and S. Clawson (Belfast, Gt. Britain)	245
Cowpea insect damage as influenced by the presence of weeds	
M.I. Ezueh and L.O. Amusan (Umuahia, Imo State, Nigeria)	255
Effects of plant spacing and soil conditions on the growth of five Atriplex species	
C.V. Malcolm, A.J. Clarke, M.F. D'Antuono and T.C. Swaan (Booragoon, W.A.,	
Australia)	265
Correlation between the incidence of aphid species and the incidence of two non- persistent viruses in tobacco.	
B. Raccah (Bet Dagan, Israel), T.P. Pirone (Lexington, KY, U.S.A.) and L.V.	
Madden (Wooster, OH, U.S.A.)	281
Effects of atmospheric CO ₂ enrichment on root: shoot ratios of carrot, radish, cotton and	
soybean	000
S.B. Idso, B.A. Kimball and J.R. Mauney (Phoenix, AZ, U.S.A.)	293
Book Reviews	
Rangelands	
Managed grasslands	
Grassland	
Soil conservation	
Pest control in greenhouses	
Pesticides	
Insect-plant interactions	
Air pollution	315
Announcements	317
Aud T J	210

